

REMARKS

The Examiner's indication that claims 5, 10, and 13-20 have been allowed, that claims 3 would be allowed if the indefiniteness thereof is corrected, and that claims 6-8 are merely objected to as dependent upon a rejected claim has been noted. By the above actions, the specification and claims 1, 3, 6, & 7 have been amended, claims 6 & 7 having been placed in independent form and claim 3 amended to remove the indefiniteness. As a result of the above actions, further consideration of this application is hereby requested.

The specification was objected to due to the presence of browser-executable code on pages 4 & 12. By the above amendments, the browser-executable code has been deleted and the article citation corrected.

Claim 3 was rejected under 35 U.S.C. § 112 as being indefinite. However, with the rewording of claim 3, which was discussed with the Examiner by telephone prior to issuance of her latest Action, the objectionable A/B terminology has been removed and this claim is now clear and definite. Thus, withdrawal of this rejection is in order and is now requested, and inasmuch as claim 3 was indicated as containing allowable subject matter, with the elimination of the indefiniteness, it should now be in condition for allowance.

Claims 1, 9 and 11-12 were rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of the patents to Harley and Hower. This rejection is inappropriate, especially to the extent that it relates to currently amended claim 1.

That is, while the Examiner acknowledges that that Harley lacks a pre-emphasis filter, she indicates that such is considered to be well known, citing Hower in support of her position. However, amended claim 1 calls for the pre-emphasis filter to be "a high-pass shelving filter for increasing amplification prior to establishment of the at least one impulse transfer function by said at least one digital filter means, said shelving filter having a shelving limit at about 3,000 Hz," the use of a shelving filter being disclosed at page 8, line 29 of the present application. Such a filter uses that part of the high-pass characteristic which increases amplification with frequency (up to an upper limit, i.e., the "shelving" value) and is important, in the context of the present invention, for preventing the impulse transfer function from being distorted, and this contextual significance is something that had not been recognized prior to the present invention. Use of a filter that filter that selects a narrow, low-

frequency range would be counter-productive, and useful results in the context of the digital signal processing performed would not be obtained.

Hower, on the other hand, teaches limiting amplification to "desired low frequencies in the 25 to 150-200Hz range" or "[a]lternatively ... from 410Hz to 600Hz range." Thus, Hower teaches limiting of amplification to about an octave in a low frequency range and provides no suggestion or reason for providing a pre-emphasis filter which would amplify frequencies up to a shelving frequency of about 3,000 Hz. More simply put, Hower is the type of filter with which useful results could not be obtained in the context of the present invention. This difference is not significant to Hower since his patent is *not* directed to a *digital* stethoscope, and it is simply not understandable how the Examiner can contend that Hower can suggest a solution to a problem that is not relevant in the context of his invention.

Still further, it is pointed out that it is clear from the circuit diagram of Hower's Fig. 2, and the part of his description at column 2, lines 55-62, that his filter is performing post-processing of the amplified signal, because the filter components 61, 65, and 67 are placed right at the output, just before the speaker. This means that there is no pre-emphasis of the signal being performed, let alone one comparable to that of the present invention.

When the irrelevance of Hower's disclosure to the present invention is viewed in the context of Harley, who discloses no reason for pre-emphasizing high frequencies and whose signal processing is not directed to duplicating the sound performance of an analog stethoscope, but rather to noise control, no logical combination of these reference could lead to the present invention defined by claim 1 of this application. In this regard, the Examiner's comment that "a noise control stethoscope constitutes a type of acoustic stethoscope" is contrary to scientific principles. No type of acoustic stethoscope would be able to reproduce body sound (vibrations, etc.) as detected in precisely that form (i.e., with extraneous noise removed) at the ear of the physician. Harley is able to do so due to the feedback circuit utilizing the microphone placed in the headphone. Thus, the Examiner's attempt to create a new type of acoustic stethoscope, i.e., a noise controlling one, for purposes of having Harley's impulse transfer function correspond to at least one acoustic stethoscope type as claimed in the present application, is improper and cannot form an appropriate basis for asserting that the present invention as defined by claim 1 is obvious.

Therefore, for the reasons stated above, the rejection of claims 1, 4, 9, 11, and 12 under § 103 based on the combined teachings of the Harley and Hower patents should be withdrawn and such action is hereby requested.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with applicant's representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Respectfully submitted,



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